

Remarks

This amendment is responsive to the official action of Paper No. 10212004, Mailed October 27, 2004. and is accompanied by an Extension under 37 C.F.R. §1.136(a) and a charge authorization for the required fee.

Applicant takes this opportunity to amend paragraph [004] in the Specification to remove the references to numbered claims.

Claims 1-11 were rejected as obvious over selected combinations of prior art references and Claim 10 was rejected as anticipated. The claims have been amended to more particularly and distinctly define the invention and the better distinguish over the prior art. Claims 10 and 11 have been canceled, without prejudice. Claim 1 as amended contains limitations from original claims 1 and 3-5. The differences between the invention and the prior art are such that the subject matter now claimed, as a whole, is not shown to have been known or obvious.

The invention concerns the flow connections made to couple flow between elements of a fitting. The invention is applicable to an on/off – hot/cold control having a housing, with an outlet part of the fitting connected to the housing via a line. An object of the respective lines and connections in any such fitting is to couple the flow to the outlet. This requires a flow line between the outlet fitting part and the housing control part. In some fittings, such as fittings with an extendable hand sprayer, there is a slack loop in the line between the housing and the outlet part. The line is coupled proximally to the housing, normally as a relatively permanent connection whereby the water flow path extends out of the installation opening, follows the slack loop (under the countertop) and extends back into the housing where the line couples with the outlet part.

The invention concerns then manner of connection of such a line, in particular including a quick connect fitting that is accessibly disposed outside of the housing from the installation opening, and comprising a quick connect coupler that is deformable to make the connection, by hand and without necessarily requiring tools, between the ends of a first line extending out from the housing and a second line extending back into the housing, to the outlet.

A connection between the housing and a hose as described, is intended to be substantially permanent. There is a small chance that at some point the hose connection might need to be replaced, but the connection is most certainly not one that will be engaged and disengaged frequently. According to the prior art, a fitting for a hose as described is correspondingly permanent, typically having threaded connectors and the like with hex or knurled surfaces to be engaged by tools, and by which connector parts are grasped and permanently torqued into threaded engagement.

Applicant also seeks to make a relatively permanent connection, but has inventively chosen to do so with a quick connect coupler of the type normally used for temporary connections. According to applicant's invention, the facility for frequent coupling and decoupling is not the point of using a quick connect coupler. An important advantage of the quick connect coupler for applicant is that the location at which a coupling needs to be made, generally under a counter top and behind a sink, is quite inapt for using tools. A snap-together no-tools deformable connector in this situation is a substantial and inventive improvement over the prior art even though the connection is more or less permanent.

The prior art lacks any suggestion that it would be possible or advantageous to apply a quick connect fitting, which might be conventional for frequently coupled/decoupled temporary connections in the open, to make a connection that is generally permanent and located where inaccessible or inconvenient for deployment of tools, namely a connection between the housing and looped hose of a water fitting. These aspects of the invention are particularly and distinctly claimed.

According to claim 1 as amended, an inventive plumbing fixture comprises a housing with at least one installation opening, a line exiting from the housing at the installation opening, a further line routed through the at least one installation opening back into the housing of the plumbing fixture, and a quick-connect connector that connects together ends of the two lines arranged outside the housing of the plumbing fixture, wherein said ends of the two lines are provided with fittings that are insertable into the quick-connect connector and are latchable into place there, wherein the ends of the lines can be disconnected from the connector without using tools, and wherein detenting and latching of the connector and the fittings is generated by deforming parts of the connector.

The invention claimed, as a whole, is neither disclosed in nor obvious from the prior art of record.

Claim 10 was rejected as anticipated by Mönch. Claim 10 has been canceled, without prejudice. Mönch does not disclose or suggest the invention defined in claim 1 as amended. In Mönch, a drop-pipe is provided from the housing of a fixture, but the connection to be made in Mönch is with a sink spray outlet that is mounted at a distance from the housing. The line for the outlet is not passed back into the housing as claimed. Moreover, Mönch does not teach or suggest making a connection using a quick-connect connector with deformable latch and detent arrangements as disclosed and claimed. As a result, Mönch does not anticipate the invention.

In the official action, Mönch was cited under 35 U.S.C. §103 in combination with Oberdörfer, against claims 1, 2, 8, 10 and 11. As mentioned above, claim 1 has been amended to include the subject matter of original claims 1 and 3-5, thereby overcoming the rejection over this combination. Mönch and Oberdörfer, in combination, do not meet the invention claimed as a whole.

Claims 1-11 were rejected under 35 U.S.C. §103 over a combination of Oberdörfer and Mericle. Reconsideration is requested in view of this amendment. There is no basis to conclude that a person of ordinary skill would routinely combine Oberdörfer and Mericle. There is no reason to believe a person of ordinary skill would

consider the references as potentially combinable and no reason to believe that a routine combination would resemble applicant's claimed invention.

Oberdörfer teaches a plumbing fitting, including the aspect of a drop-pipe that exits the housing and a line that is routed back into the housing to an outlet part. See also Sponheimer, of record, which is similar. However, as recognized in the official action, Oberdörfer does not teach a quick connect plug-in fitting with deformable elements to achieve detents and latching as claimed. Oberdörfer teaches a relatively permanent threaded connection made using tools.

It is an aspect of the invention that by providing a quick connect fitting for the two lines that respectively emerge from and re-enter the installation opening (e.g., a hole in a countertop), that one can make and re-make a connection without the inconvenience of deploying tools under a countertop, typically under and behind a sink. Applicant has used a quick connect tool-less fitting of a type normally used for situations characterized by frequent coupling and decoupling, but has done so inventively in an environment where the connection is to be permanent but there is a marked advantage from the fact that the connection can be made without deploying wrenches, pliers or similar torque and leverage tools. This aspect of the invention is not found in either Oberdörfer or Mericle. Therefore, it is only in hindsight with the benefit of applicant's disclosure that one can suggest that there might be a benefit in a quick connect fitting for this particular application.

Moreover, Mericle fails to suggest the applicability of its form of coupling to a plumbing connection. Mericle teaches an anastomosis coupler for joining tubular organs and blood vessels in surgical procedures. The field of couplers for biological ducts and vessels is not analogous to plumbing fittings. The two fields differ in a number of important ways that show that the person of ordinary skill in the art of plumbing would not look to blood vessel junctions and vice-versa, for solutions to the problems they respectively encounter. The materials and durability of the two types of "tubes" to be coupled are starkly different. The object of the junction, namely sealing versus engagement for healing, are different. There is no comparison with respect to

considerations such as tool access using wrenches and pliers under a sink versus surgical procedures. There is no basis to conclude that the person of ordinary skill would routinely apply a blood vessel or organ junction anastomosis to the connection between a plumbing fixture valve housing and a flexible tube leading to a retractable-extendable sprayer.

MPEP 904.01(c) explains that a consideration for whether a field of prior art is analogous involves whether the prior art is directed to the same essential function. However, arbitrary selection of a generalized function from various considerations, as an "essential function" by which diverse fields are considered analogous (e.g., making a flow connection) is only one consideration. The fact that one can identify a common function in hindsight is not sufficient to establish a prima facie showing that it would be an obvious matter to apply an anastomosis to an under-sink plumbing fixture. The question of obviousness requires more than a suggestion of some commonality of function as seen in hindsight. See MPEP 2141.01(a), citing *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1442 (Fed. Cir. 1992), in which it was considered erroneous to consider hook and eye fasteners analogous in the art of hose clamps, from a similar hook and eye structure in the prior art of making closures in garments. Any conclusions regarding obviousness versus unobviousness are properly made with consideration of all the aspects of the invention versus the prior art, i.e., the invention claimed as a whole versus the objective teachings of the references.

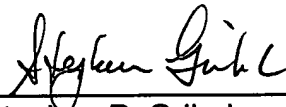
In a rejection for obviousness, it is necessary to consider the differences between the prior art and the invention claimed as a whole. This includes the nature of the problem confronted and also the solution that is applied. There is nothing in the prior art to show or suggest that the person of ordinary skill confronted with the problems of under-sink installation and other services associated with retractable-extendable sprayer hoses and the like, which are fully intended to be substantially permanent, would routinely or obviously employ the deformable detent quick connect coupling that might typically be used for a temporary and coupling in the open. There is no basis of record to conclude that the invention claimed as whole would have been known or obvious to a person of ordinary skill in the pertinent art.

The claims as amended particularly and distinctly define the subject matter regarded as the invention. The differences between the invention and the prior art are such that the subject matter claimed, as a whole, is not shown to have been known or obvious.

The application is in condition for allowance. Reconsideration and allowance are requested.

Respectfully submitted,

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Stephan P. Gribok
Reg. No. 29,643
Duane Morris LLP
One Liberty Place, 1650 Market Street
Philadelphia, PA 19103-7396
tel. 215-979-1283
fax. 215-979-1020
SPGRIBOK@DUANEMORRIS.COM

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